



# GLADIATOR

## USMC Tactical Unmanned Ground Vehicle Program



### Background

In 1999, the Department of the Navy Science and Technology Corporate Board established the Autonomous Operations Future Naval Capability (FNC) to enhance the mission capability of Naval Forces by developing technologies that will dramatically increase autonomy, performance, and affordability of Naval organic unmanned vehicles. The Autonomous Operations FNC will address critical technology gaps in the ability of Marine Corps forces to utilize unmanned ground vehicles in an expeditionary warfare campaign. The Unmanned Ground Vehicle (UGV) S&T investment is focused on the accelerated development of technologies to fill critical capability gaps, demonstration of those technologies with operational forces, and successful transition of technologies into acquisition programs.

### Office of Naval Research TUGV Program

The Office of Naval Research awarded contracts for the United States Marine Corps Gladiator Tactical Unmanned Ground Vehicle program. The objectives of this science and technology effort are to develop, demonstrate and transition a lightweight, multi-purpose, unmanned ground vehicle. Contracts were awarded for the development of TUGV system preliminary designs, with options to proceed to detailed designs. During FY02/03, a Preliminary Design Phase was conducted. The program is currently in the Design Refinement and Demonstration Phase. At completion of this phase near the end of FY04, the program will transition to the Unmanned Ground Vehicles/Systems Joint Project Office (UGV/S JPO) and Marine Corps Systems Command. Subsequent management and support for the System Development & Demonstration (SDD) Phase (FY04-06) will come from the UGV/S JPO and the Office of the Secretary of Defense (OSD). This effort will lead to the first combat TUGV fielded by the DoD.

### Gladiator Tactical Unmanned Ground Vehicle

The Marine Corps is engaged in an acquisition program to develop a Tactical Unmanned Ground Vehicle in order to provide the Marine Air-Ground Task Force (MAGTF) with a tele-operated/semi-autonomous ground vehicle for remoting combat tasks in order to reduce risk to Marines and neutralize threats. The Gladiator is designed principally to support dismounted infantry during the

performance of their mission, across the spectrum of conflict and range of military operations. The primary function of the Gladiator will be to provide the Ground Combat Element (GCE) with unmanned scouting and reconnaissance, surveillance, and target acquisition (RSTA). Operating forward of GCE units, the Gladiator will perform scouting and reconnaissance tasks while permitting the operator to remain covered and concealed some distance away. Additional functions of the Gladiator system will be to utilize a modular configuration capable of employing the Anti-Personnel/Obstacle Breaching System (APOBS), M240G/M249 Machine Guns, and currently fielded chemical detection systems. With the development of future Mission Payload Modules (MPM), projected operational capabilities include: obscurant delivery; direct fire (lethal and non-lethal); communications relay; tactical deception (electronic and acoustic); combat resupply; casualty evacuation, or counter sniper employment. These modules will allow commanders to increase their operational capability by tailoring the capabilities of the Gladiator to best meet their mission requirements.



*Technology Demonstration/Concept Validation Models*

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